

299-W14-52 (A7336) Log Data Report

Borehole Information:

Borehole: 299-W14-52 (A7336)		Site: 216-T-19 Crib			
Coordinates (WA St Plane)		GWL¹ (ft): None	GWL Date: 05/10/06		
North (m)	East (m)	Drill Date	Top of casing Elevation (ft)	Total Depth (ft)	Type Cable
135936.513	566855.414	12/48	666.26	28	

Casing Information:

Casing Type	Stickup (ft)	Outer Diameter (in.)	Inside Diameter (in.)	Thickness (in.)	Top (ft)	Bottom (ft)
Welded Steel	1.65	8 5/8	8	5/16	1.65	28

Borehole Notes:

Casing diameter and casing stickup measurements were acquired by the logging engineer using a caliper and steel tape. Measurements were rounded to the nearest 1/16 in.

Logging Equipment Information:

Logging System: Gamma 1N	Type: SGLS (60%) SN: 45-TP22020A
Effective Calibration Date: 04/05/06	Calibration Reference: DOE/EM-GJ1183-2006
Logging Procedure: MAC-HGLP 1.6.5, Rev. 0	

Spectral Gamma Logging System (SGLS) Log Run Information:

Log Run	1	2 Repeat		
Date	05/11/06	05/11/06		
Logging Engineer	McClellan	McClellan		
Start Depth (ft)	26.0	22.0		
Finish Depth (ft)	2.0	19.0		
Count Time (sec)	100	100		
Live/Real	R	R		
Shield (Y/N)	N	N		
MSA Interval (ft)	1.0	1.0		
ft/min	N/A ²	N/A ³		
Pre-Verification	AN023CAB	AN023CAB		
Start File	AN024000	AN024025		
Finish File	AN024024	AN024028		
Post-Verification	AN024CAA	AN024CAA		
Depth Return Error (in.)	0	- 0.5		
Comments	No fine gain adjustment.	No fine gain adjustment.		

Logging Operation Notes:

Logging was conducted with a centralizer on the sonde. Logging data acquisition is referenced to the top of casing. A repeat section was collected from 19 to 22 ft in this borehole to evaluate system performance.

Analysis Notes:

Analyst:	Henwood	Date:	10/12/06	Reference:	GJO-HGLP 1.6.3, Rev. 0
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Pre-run and post-run verifications for the logging system were performed before and after the day's data acquisition. The acceptance criteria were met.

A casing correction for 0.3125-in.-thick casing was applied to the log data.

SGLS spectra were processed in batch mode using APTEC SUPERVISOR to identify individual energy peaks and determine count rates. Concentrations were calculated with an EXCEL worksheet template identified as G1NApr06.xls using efficiency functions and corrections for casing, water, and dead time as determined from annual calibrations.

Results and Interpretations:

¹³⁷Cs is the only man-made radionuclide detected in this borehole. ¹³⁷Cs is detected at the ground surface at approximately 1 pCi/g.

The repeat section indicates good agreement of the naturally occurring KUT and ¹³⁷Cs concentrations.

List of Plots:

Depth Scale: 1" = 20 ft

Manmade Radionuclides

Natural Gamma Logs

Combination Plot

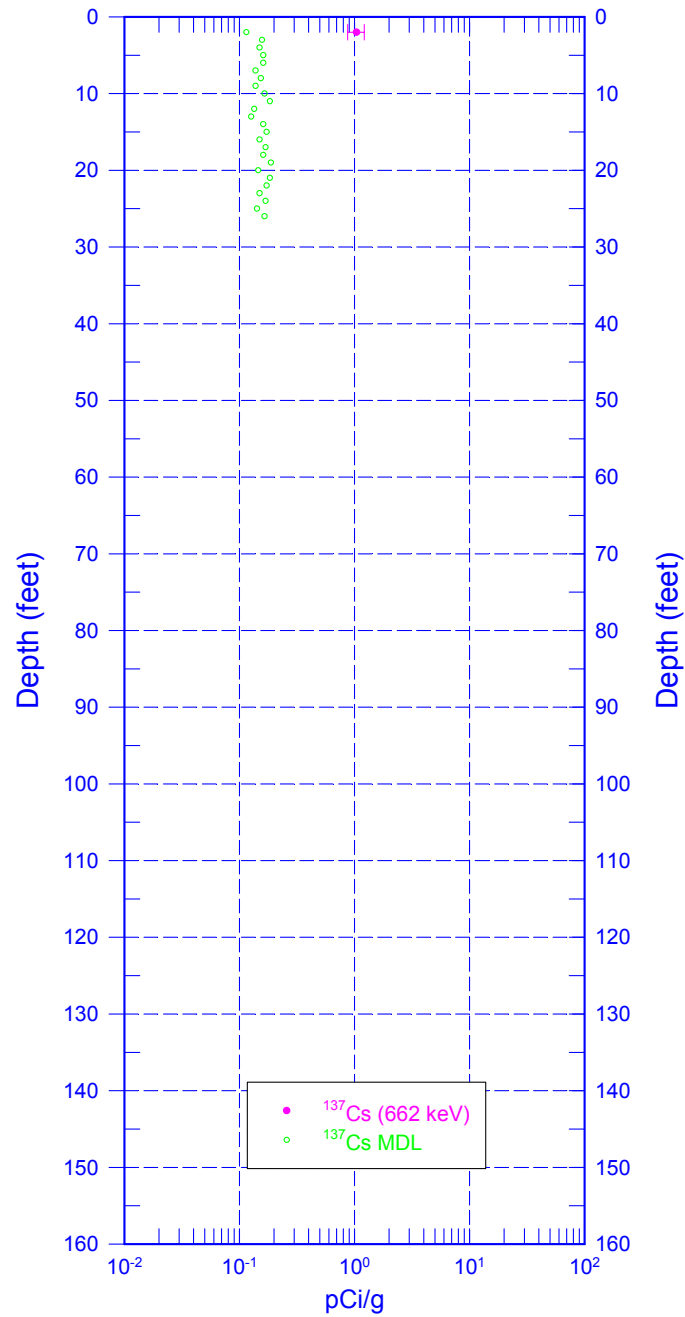
Total Gamma and Dead Time

Repeat Section of Natural Gamma Logs

¹ GWL – groundwater level

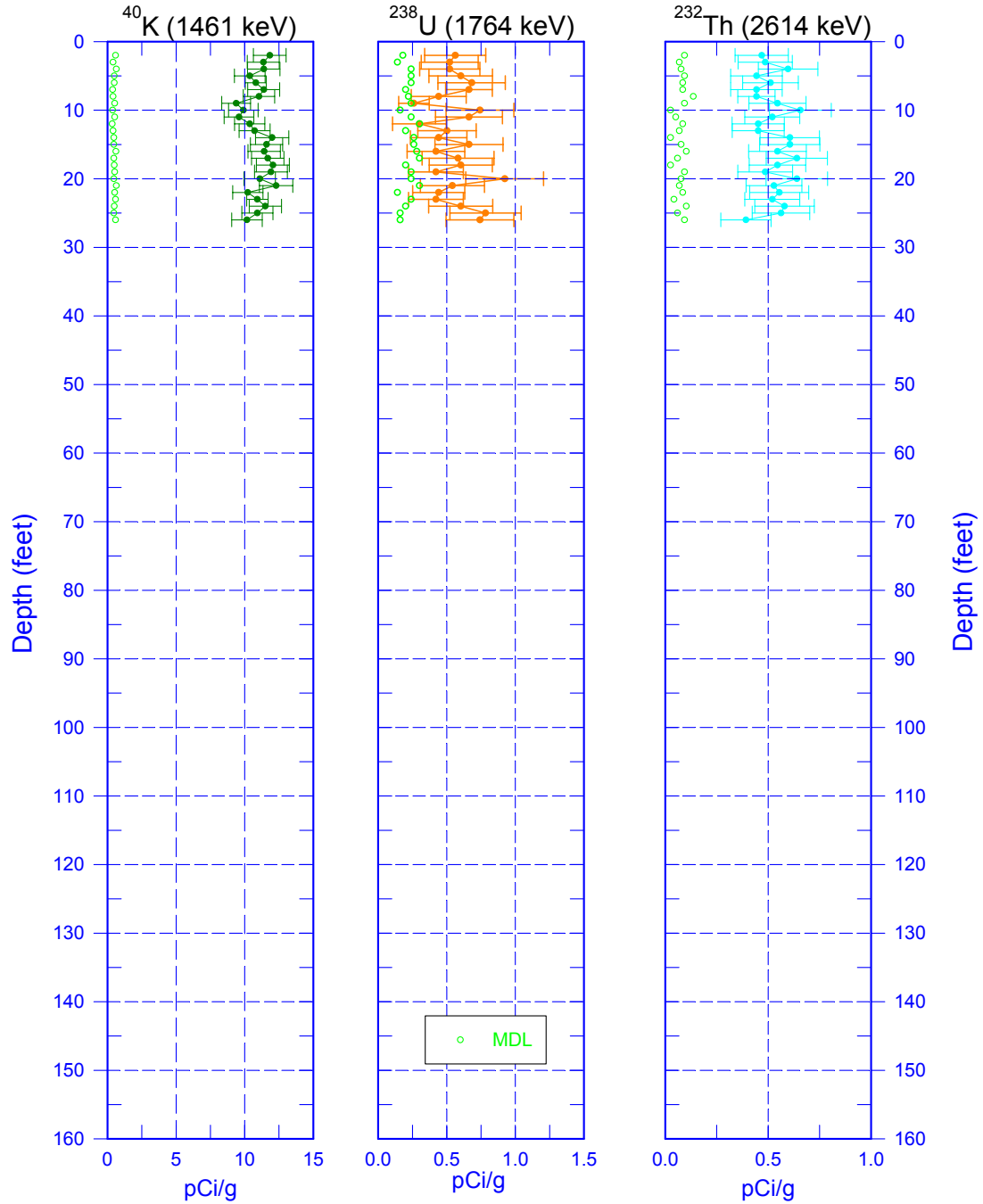
299-W14-52 (A7336)

Manmade Radionuclides



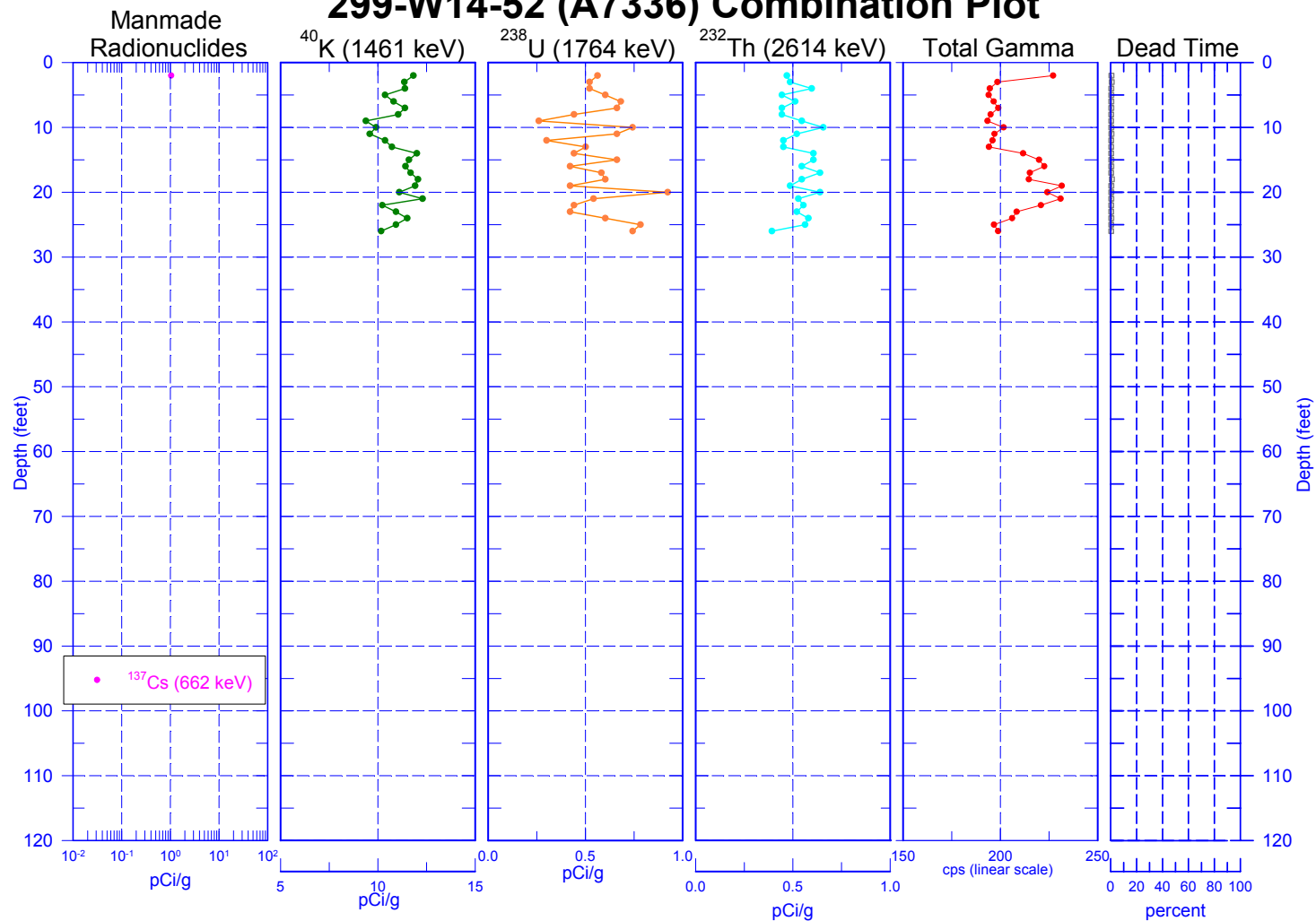
Zero Reference - Top of Casing

299-W14-52 (A7336) Natural Gamma Logs



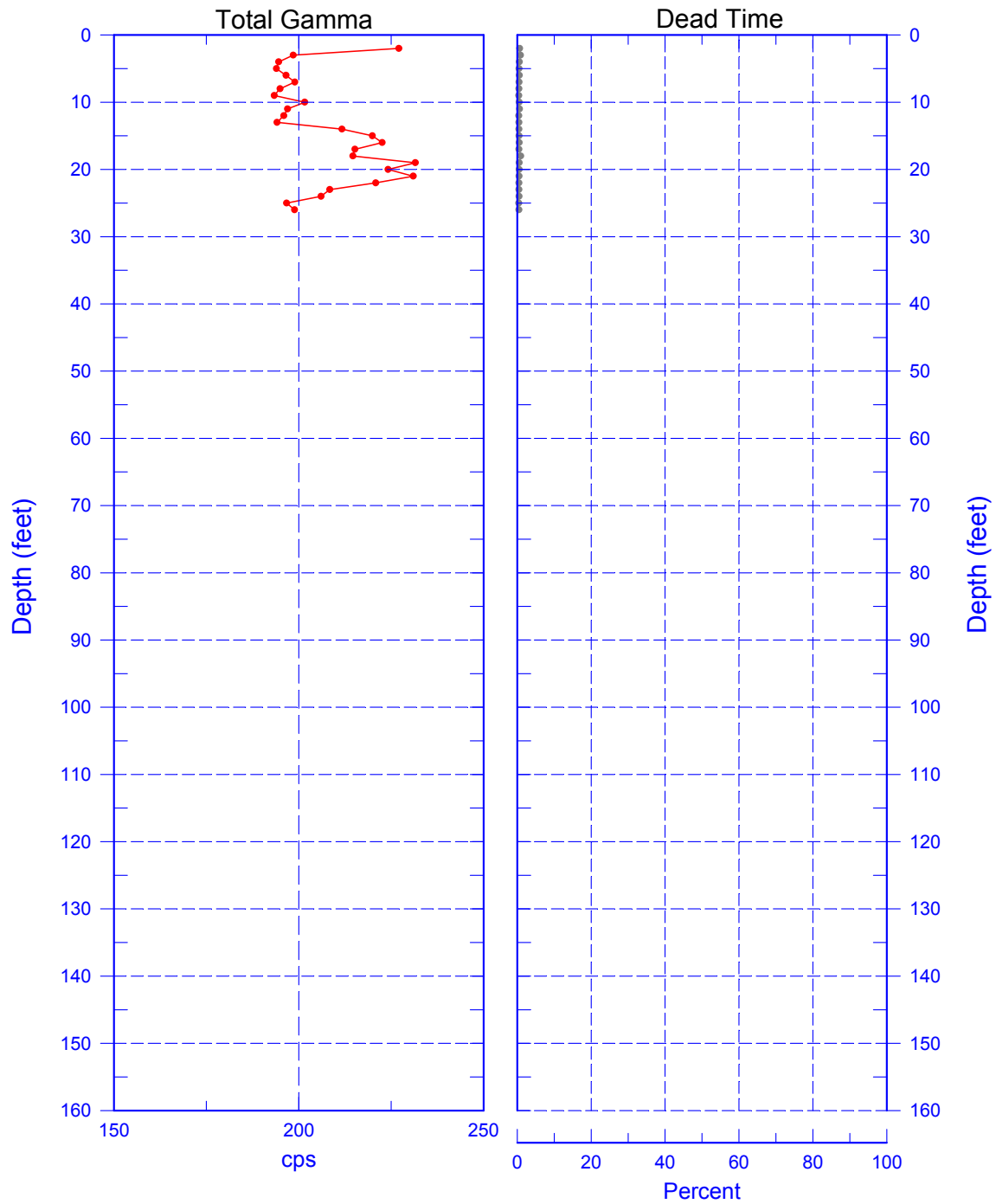
Zero Reference = Top of Casing

299-W14-52 (A7336) Combination Plot



299-W14-52 (A7336)

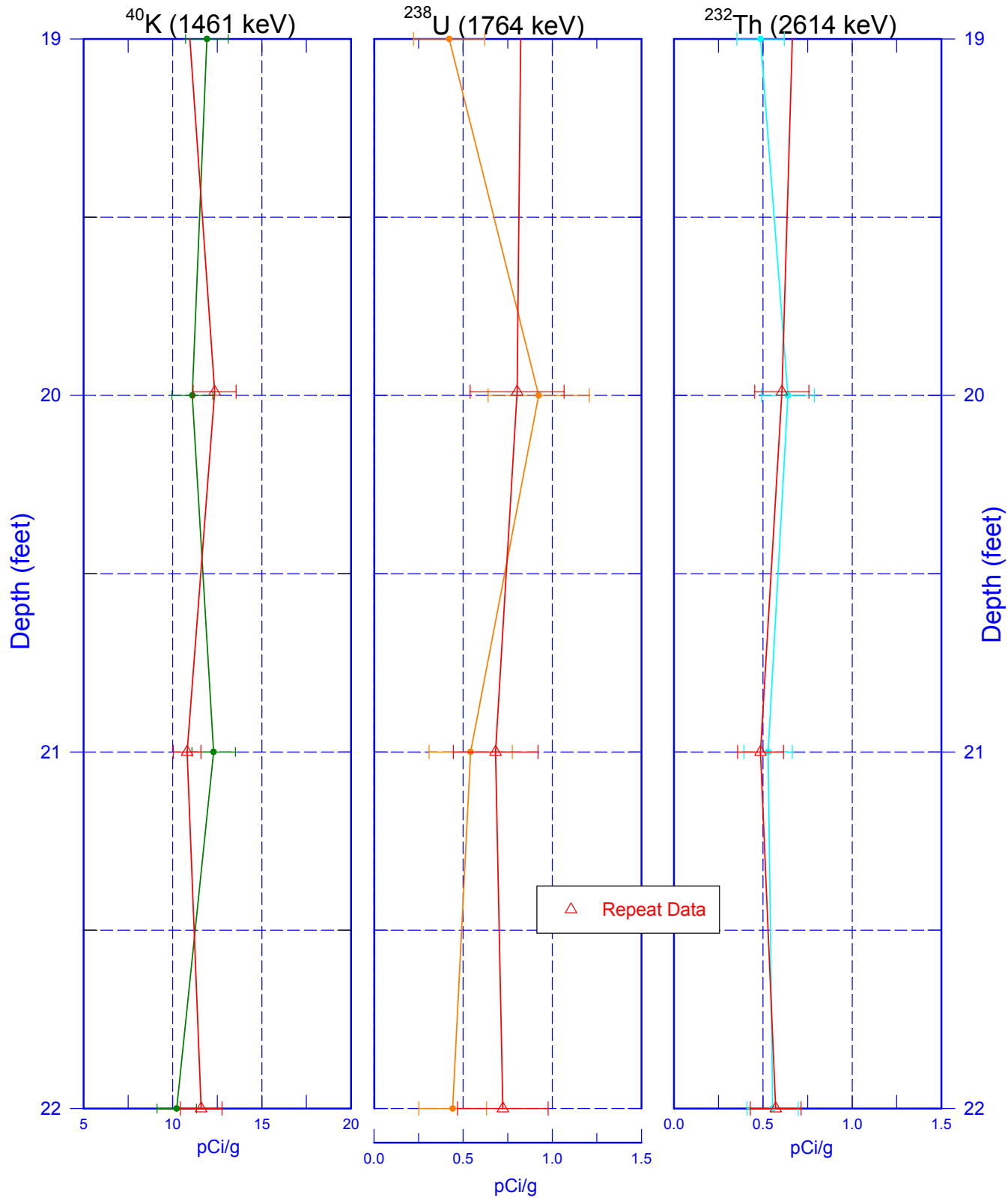
Total Gamma & Dead Time



Reference - Top of Casing

299-W14-52 (A7336)

Repeat Section of Natural Gamma Logs



Zero Reference - Top of Casing